



# Financial Mechanisms and the Transportation Sector

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# Overview

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- Economic context of transportation based financial mechanisms
- Types of programs
  - **Roadway Pricing**
  - **Parking Management**
  - **Vehicle Use Pricing**
- Keys to successful implementation



# Why are we interested in transportation pricing?

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- Automobile travel helps provide access, but presents many hidden costs
  - Air pollution
  - Water pollution
  - Ozone depletion
  - Climate effects
  - Human health
  - Loss of habitat / species and biodiversity
  - Construction and maintenance of system
  - Delay and traffic congestion
- Costs represent *de facto* subsidies to users



# Pricing and Travel Behavior

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- Addresses market distortion
- Incorporates cost of transportation decisions into a price that consumers see and pay directly
- Provides information on true cost of travel
- Allows travelers to make rational trade-offs
- Can affect all forms of travel and trip-making
- Improved travel time and increased reliability
- Encourages innovation and efficient use of resources



# Implications for Transportation and Air Quality Planning

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- Direct method of achieving air quality objectives
- Affects air quality of all types – PM, toxics, haze, ozone
- Produces change more rapidly than building facilities or changing vehicles
- Very efficient to implement – generally self-financing
- Can provide revenue to support implementation of other transportation improvements and programs
- Helps avoid updates to SIPs in search of newer, stronger, and more expensive measures
- Offsets need for new transportation capacity
- Promotes sustainability of transportation and air quality plans



# Roadway Pricing

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- Tolls
- HOT lanes
- Variable tolls / congestion pricing
  - Variable tolls in Lee County, Florida and New York / New Jersey
  - Congestion pricing of SR-91 in Orange County, California and San Diego I-15 Express Lanes



# The Verdict on Roadway Pricing

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- Can exert a strong influence on travel behavior
- Reduces congestion and VMT, relative to conventional facilities
- Air quality benefits less certain, since priced facilities may have higher travel speeds



# Parking Management

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- 90 percent of employees receive free parking; tax-deductible to employers and untaxed fringe benefit to employee
- California Assembly Bill 2109
  - Mandatory cash in lieu of parking for firms with over 50 employees that lease parking; affects around 3 percent of total parking spaces
  - Employer participation initially inconsistent, because of earlier inconsistency with federal tax law
- Tax Relief Act of 1997 allows employers to offer cash in lieu of parking without losing parking tax exemption





# The Verdict on Parking Management

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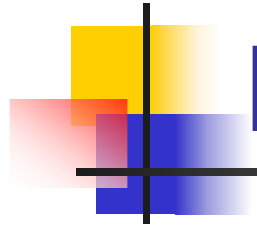
- Participation rates are respectable – around 17 percent of eligible employees in California study
- Produce less change in travel behavior than roadway pricing or other direct charges
  - Driver inertia
  - Parking cash-out is taxable
- Opportunity for improved outreach and program monitoring



# Vehicle Use Measures

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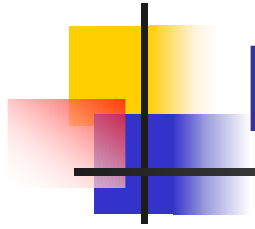
- Pay-as-you-drive insurance
  - Accounts for vehicle mileage along with traditional rating factors; Texas pilot
- Mileage-based automotive leasing and taxation
- Variable-priced registration
- Emissions fees
  - Internalize cost of pollution by charging per pound of gaseous emissions
  - Considered in California and Maryland



# Key Planning Considerations

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- Build strong institutional relationships during early stages of project
- Designate a lead agency
- Establish pricing policies as front-end alternatives
- Anticipate common public and political concerns



# Key Planning Considerations

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- Create a range of materials, with both uniform and targeted messages
- Meaningful dialogue with the public
  - Citizen surveys
  - Focus groups
  - Task forces
  - Report back to public
- Utilize or develop coalitions and partnerships
- Cultivate effective and positive relations with the media



# Additional Resources

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## COMMUTER Model

<http://www.epa.gov/otaq/transp/comchoic/r00016.pdf>

## Opportunities to Improve Air Quality through Transportation Pricing Programs

[http://www.epa.gov/otaq/transp/publicat/pub\\_mrkt.htm](http://www.epa.gov/otaq/transp/publicat/pub_mrkt.htm)

## Value Pricing

<http://www.hhh.umn.edu/centers/slp/projects/conpric/index.htm>